



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Pal Maliga, et al.
Serial No. : 10/737,251
Filing Date : December 15, 2003
Examiner : Anne R. Kubelik
Group Art Unit : 1638
Entitled : "Plastid rRNA Operon
Promoter Elements for
Construction of Chimeric
Promoters for Transgene
Expression"

07/06/2006 HDESTA1 00000052 10737251

01 FC:1806

180.00 OP

Suite 2400
1601 Market Street
Philadelphia, PA 19103
(215) 563-4100 (telephone)
(215) 563-4044 (facsimile)
Our File No. 1594-RUT.03-083US

Certificate of Mailing Under 37 C.F.R. §1.8(a):

I hereby certify that this correspondence is being deposited on June 29, 2006 with the United States Postal Service as first-class mail in an envelope properly addressed to the Mail Stop: AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Robert C. Netter, Jr., Ph.D.

Mail Stop: AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.97

Dear Sir:

In compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, Applicants are submitting herewith 1 sheet of Form PTO/SB/08A and 4 sheets of Form PTO/SB/08B and copies of the

non-patent literature references listed thereon. This Information Disclosure Statement is being filed after receipt of an Official Action on the merits but before the mailing of a Final Official Action or a Notice of Allowance. Accordingly, the fee required under 37 C.F.R. 1.97(c) is enclosed.

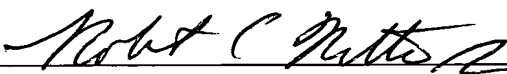
This submission is not an admission that the references listed on the attached Form PTO/SB/08A and Form PTO/SB/08B constitute prior art against the claims of this application.

The Examiner is respectfully requested to confirm receipt and consideration of the cited reference by initialing and returning a copy of the attached Form PTO/SB/08A and PTO/SB/08B in accordance with MPEP §609.

In the event that any additional fee is required in connection with this submission and not enclosed, the Commissioner is authorized to charge Deposit Account No. 04-1406 of the undersigned attorneys. A duplicate copy of this sheet is enclosed.

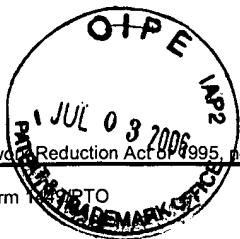
Early and favorable consideration of this application is respectfully requested.

Respectfully submitted,
DANN, DORFMAN, HERRELL AND SKILLMAN
A Professional Corporation
Agent for Applicants

By: 
Robert C. Netter, Jr., Ph.D.
Registration No. 56,422

RCN:LCF

Enclosures - Form PTO/SB/08A and Form PTO/SB/08B
- Copy of non-patent literature references



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1001, USPTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/737,251
Filing Date	December 15, 2003
First Named Inventor	Maliga et al.
Art Unit	1638
Examiner Name	Anne R. Kubelik
Attorney Docket Number	1594-RUT.03-083US

Sheet 1 of 5

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A1	US- 6,987,215	01-17-2006	Maliga	
	A2	US- 6,624,296	09-23-2003	Maliga	
	A3	US- 6,472,586	10-29-2002	Maliga	
	A4	US- 6,388,168	05-14-2002	Maliga	
	A5	US- 6,376,744	04-23-2002	Maliga	
	A6	US- 6,297,054	10-02-2001	Maliga	
	A7	US- 5,545,818	08-13-1996	McBride	
	A8	US- 5,451,513	09-19-1995	Maliga	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND

TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Sheet 2 of 5	Application Number	10/737,251
	Filing Date	December 15, 2003
	First Named Inventor	Maliga et al.
	Art Unit	1638
	Examiner Name	Anne R. Kubelik
	Attorney Docket Number	1594-RUT.03-083US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1	TOZAWA, Y., et al., "Nuclear encoding of a plastid sigma factor in rice and its tissue- and light-dependent expression," Nuc. Acids Res., 26:415-419, (1998).	
	C2	TAN, S., et al., "Characterization of two chloroplast RNA polymerase sigma factors from Zea mays: photoregulation...", Proc. Natl. Acad. Sci. USA, 96:5316-5321, (1999).	
	C3	SVAB, Z., et al., "High-frequency plastid transformation in tobacco by selection for a chimeric aadA gene," Proc. Natl. Acad. Sci. USA, 90:913-917, (1993).	
	C4	SUN, E., et al., "In vitro analysis of the pea chloroplast 16S rRNA gene promoter," Mol. and Cell. Biol., 9:5650-5659, (1989).	
	C5	STRITTMATTER, G., et al., "Identification of an rRNA operon promoter from Zea mays chloroplasts which excludes the proximal...", EMBO J., 4:599-604, (1985).	
	C6	STAUB, J.M., et al., "Accumulation of D1 polypeptide in tobacco plastids is regulated via the untranslated region...", EMBO J., 12:601-606, (1993).	
	C7	SRIRAMAN, P., et al., "The phage-type PcpP-53 plastid promoter comprises sequences downstream of the transcription initiation site," Nuc. Acids Res., 26:4874-4879, (1998).	
	C8	SRIRAMAN, P., et al., "Transcription from heterologous rRNA operon promoters in chloroplasts reveals requirement for specific...", Plant Physiol., 117:1495-1499, (1998).	
	C9	SHIINA, T., et al., "rbcL transcript levels in tobacco plastids are independent of light: reduced dark transcription rate is...", Plant Cell, 10:1713-1722, (1998).	
	C10	ROSS, W., et al., "E. coli Fis protein activates ribosomal RNA transcription in vitro and in vivo," EMBO J., 9:3733-3742, (1990).	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/737,251
Filing Date	December 15, 2003
First Named Inventor	Maliga et al.
Art Unit	1638
Examiner Name	Anne R. Kubelik
Attorney Docket Number	1594-RUT.03-083US

Sheet 3

of

5

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C11	OROZCO, E.M., et al., "An in vitro system for accurate transcription initiation of chloroplast protein genes," Nuc. Acids Res., 13:1283-1302, (1985).	
	C12	LIERE, K., et al., "In vitro characterization of the tobacco rpoB promoter reveals a core sequence motif conserved between phage-type plastid...", EMBO J., 18:249-257, (1999).	
	C13	LAHIRI, S.D., et al., "Complementary expression of two plastid-localized sigma-like factors in maize," Plant Physiol., 123:883-894, (2000).	
	C14	KIM, M., et al., "Detailed architecture of the barley chloroplast psbD-psbC blue light-responsive promoter," J. Biol. Chem., 274:4684-4692, (1999).	
	C15	KIM, M., et al., "Identification of a sequence-specific DNA binding factor required for transcription of the barley chloroplast...", Plant Cell, 7:1445-1457, (1995).	
	C16	KESTERMANN, M., et al., "Sequence and expression characteristics of a nuclear-encoded chloroplast sigma factor...", Nuc. Acids Res., 26:2747-2753, (1998).	
	C17	JOLLY, S.O., et al., "Preferential transcription of cloned maize chloroplast DNA sequences by maize chloroplast RNA polymerase," Proc. Natl. Acad. Sci. USA, 77:822-826, (1980)	
	C18	ISONO, K., et al., "Leaf-specifically expressed genes for polypeptides destined for chloroplasts with domains of...", Proc. Natl. Acad. Sci. USA, 94:14948-14953, (1997).	
	C19	IRATNI, R., et al., "Organ-specific transcription of the rrn operon...", J. Biol. Chem., 272:13676-13682, (1997).	
	C20	HIRVONEN, C., et al., "Contributions of UP elements and the transcription factor FIS to expression from the seven rrn P1 promoters...", J. Bact. 183:6305-6314, (2001).	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Sheet 4 of 5	Application Number	10/737,251
	Filing Date	December 15, 2003
	First Named Inventor	Maliga et al.
	Art Unit	1638
	Examiner Name	Anne R. Kubelik
	Attorney Docket Number	1594-RUT.03-083US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C21	HAKIMI, M-A., et al., "Evolutionary conservation of C-terminal domains of primary sigma 70-type...", J. Biol. Chem., 275:9215-9221, (2000).	
	C22	GRUISSEM, W., et al., "Analysis of promoter regions for the spinach chloroplast rbcL, atpB and psbA genes," EMBO J., 4:3375-3383, (1985).	
	C23	EISERMANN, A., et al., "In vitro transcription and DNA binding characteristics of chloroplast and etioplast extracts from mustard...", EMBO J., 9:3961-3987, (1990).	
	C24	DUBELL, A.N., et al., "Differential transcription of pea chloroplast genes during light-induced leaf development," Plant Physiol., 109:105-112, (1995).	
	C25	CHUN, L., et al., "Phytochrome A mediates blue light and UV-A-dependent chloroplast gene transcription in green leaves," Plant Physiol., 125:1957-1966, (2001).	
	C26	CHAN, C.L., et al., "The anti-initial transcribed sequence, a portable sequence that impedes promoter escape...", J. Biol. Chem., 276:38201-38209, (2001).	
	C27	BLIGNY, M., et al., "Regulation of plastid rDNA transcription by interaction of CDF2 with two different RNA polymerases," EMBO J., 19:1851-1860, (2000).	
	C28	BAUMGARTNER, B.J., et al., "Plastid genes encoding the transcription/translation apparatus are differentially...", Plant Physiol., 101:781-791, (1993).	
	C29	ALLISON, L.A., et al., "Deletion of rpoB reveals a second distinct transcription system in plastids of higher plants," EMBO J., 15:2802-2809, (1996).	
	C30	ALLISON, L.A., et al., "Light-responsive and transcription-enhancing elements regulate the plastid psbD core promoter," EMBO J., 14:3721-3730, (1995).	

Examiner Signature		Date Considered	
---------------------------	--	------------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/737,251
Filing Date	December 15, 2003
First Named Inventor	Maliga et al.
Art Unit	1638
Examiner Name	Anne R. Kubelik
Attorney Docket Number	1594-RUT.03-083US

Sheet 4

of 5

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C31	AIYAR, S.E., et al., "Upstream A-tracts increase bacterial promoter activity through interactions with...", Proc. Natl. Acad. Sci. USA, 95:14652-14657, (1998).	
	C32	MANNA, F., et al., "A tRNA gene mapping within the chloroplast rDNA cluster is differentially expressed during the development...", Nuc. Acids Res., 22:1712-1718, (1994).	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.